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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,091	10/23/2001	John Reginald Newton	65008-031	6061

7590

07/30/2003

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EXAMINER

GOFF II, JOHN L

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 07/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding:

Office Action Summary

Application No.

09/890,091

Applicant(s)

NEWTON, JOHN REGINALD

Examiner

John L. Goff

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-14, drawn to a method of bonding honeycomb panels.

Group II, claim(s) 15, drawn to a ferrule.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: All of the groups are directed to method and apparatus useful in the general field of building, but each group has different special technical features. Group I has a special technical feature directed to bonding a honeycomb panel to another honeycomb panel not required for Group II. Group II has a special technical feature directed to a ferrule for sealing not required for Group I.

2. During a telephone conversation with Harold Milton on 7/18/03 a provisional election was made with traverse to prosecute the invention of I, claims 1-14. Affirmation of this election must be made by applicant in replying to this Office action. Claim 15 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

3. Claims 4, 6, 7, 8, and 12 are objected to because of the following informalities: In the claims after "A method as claimed in" delete "any of". In claim 12, line 3 delete "panel" and insert therein - - panels - -.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-8, 11, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. In claim 1, the phrase “bonding the panels and/or units together” is unclear and confusing. It appears the panels are bonded together or to adjacent structural units that can be panels. However, the specification does not appear to support bonding two structural units together that are not panels. Thus, for clarification it is suggested to change “bonding the panels and/or units together” to - - bonding the panels together or bonding the panels to the structural units - -. This issue should be clarified and reworded as appropriate.

7. Claim 6 recites the limitation "the third element" in line 1. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 11 requires “the panels and other units are made from a thermoplastic resin and heating elements provided to fuse adjacent abutting surfaces”. Claim 11 depends from claim 9 which requires adhesive to join the panels. It is unclear where in the specification is described forming the units of fusible thermoplastic materials and joining the units by fusing in addition to adhesive. It is suggested claim 11 depend from claim 1. This issue should be clarified and reworded as appropriate.

Art Unit: 1733

9. Claim 14 requires “a single leaf wall”. Claim 14 depends from claim 12 which requires a double leaf wall. Furthermore, it is unclear what is meant by the phrase a “simpler strip”. This issue should be clarified and reworded as appropriate.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Roots (GB 1223016).

Roots is directed to forming self supporting frameworks from structural units. Roots teaches honeycomb sandwiches, i.e. panels, having flat edges wherein the edges of the sandwiches are bonded to box sections to form structural units. Roots teaches the units are bonded to one another at their joints to form self-supporting frameworks, i.e. structures. Roots teaches the corners of the frameworks are provided by box sections (Figures 1-4 and Page 1, lines 9-11, 49-51, 77-80, and 85-90 and Page 2, lines 1-4 and 35-38).

Art Unit: 1733

12. Claims 1, 2, and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Price et al. (U.S. Patent 6,253,530).

Price et al. are directed to a structural honeycomb panel building system. Price et al. teach honeycomb panels with one end having a recessed edge (capable of receiving adhesive extending across less than the width of the edge) (178 of Figure 4) and a plurality of more greatly recessed areas (capable of forming a gallery for rapid transit of adhesive along the edge) (open honeycomb cells as shown in Figure 5a) and the other end of the panels having extended honeycomb cores (176 of Figure 4). Price et al. teach joining the honeycomb panels together by applying adhesive to the recessed edge and inserting the extended core of adjacent panels into the recessed edge such that when the adhesive cures the panels bond to each other to form a composite building structure (Figures 1-5a, 10, 15, 20, 30, and 31 and Column 2, lines 36-38 and 48-49 and Column 9, lines 39-44 and Column 16, lines 31-49).

13. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Jensen et al. (U.S. Patent 5,509,250).

Jensen et al. are directed to a method of making structural panel systems used as building components such as cavity wall systems. Jensen et al. teach forming the walls by providing two honeycomb panels, locating the panels in spaced relationship by means of a recess in a channeled I-beam, and bonding the panels to the I-beam to form a cavity wall (Figure 2 and Column 3, lines 61-63 and Column 4, lines 21-26 and 47-51).

Art Unit: 1733

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roots as applied above in paragraph 11, and further in view of Newton (EP 708706).

Roots as applied above teaches all of the limitations in claims 3-8 except for a teaching of how to make the honeycomb sandwiches. It would have been obvious to one of ordinary skill in the art at the time the invention was made to produce the honeycomb sandwiches taught by Roots using the well known technique of injection molding as shown for example by Newton as Newton is directed to forming panels of the same type as Roots and only the expected results would be achieved.

Newton teaches a method of forming a composite honeycomb structural unit comprising placing a facing sheet into the mold, placing a web of fibers having a honeycomb pattern in a manner that produces the desired configuration while avoiding the need for any discontinuity of the web structure or any crossing over of the web onto the facing, placing a second facing sheet onto the web of fibers, and injecting a resin into the mold to form a composite honeycomb structural unit (Figures 1-3 and Page 1, lines 30-31 and Page 2, lines 1-2 and Page 4, lines 28-32 and Page 5, lines 7-10 and 16-17).

Art Unit: 1733

16. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Price et al. as applied above in paragraph 12, and further in view of Ben-Zvi (WO 97/26459).

Price et al. as applied above teach all of the limitations in claim 10 and 11 except for a teaching on using integrated heater elements to cure the adhesive or using honeycomb panels formed of thermoplastic resin.

Regarding claim 10, one of ordinary skill in the art at the time the invention was made would have readily appreciated increasing the cure rate of the ambient curing adhesive taught by Price et al. using heating units integrated into the panels as it was well known to provide integrated heating units to provide curing heat as shown for example by Ben-Zvi.

Regarding claim 11, it would have been well within the purview of one of ordinary skill in the art at the time the invention was made to form the honeycomb panels taught by Price et al. from thermoplastic resins as it was well known in the art to form panels such as those taught by Price et al. from thermoplastic resins for easy fusion bonding through integrated heating elements as shown for example by Ben-Zvi.

Ben-Zvi is directed to a method of bonding panels to form structural units. Ben-Zvi teaches the panels comprise facing sheets connected by ribs. Ben-Zvi teaches the panels are formed of thermoplastic resins. Ben-Zvi teaches the panels include integrated heating elements such that the panels are bonded to additional pieces by localized melting of the thermoplastic resin, i.e. fusion bonding (Figures 1 and 2 and Page 3, lines 8-10 and Page 4, lines 4-7 and Page 5, lines 10-12, 19-20, and 23-27 and Page 7, lines 20-22).

Art Unit: 1733

17. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al. as applied above in paragraph 13, and further in view of Price et al.

Jensen et al. teach all of the limitations in claims 13 and 14 as applied above except for a teaching on forming a sealed, e.g. by means of a shaped strip, window, door or the like in the cavity wall. It is further noted that while Jensen et al. teach the cavity wall can be used as a skylight Jensen et al. is generally directed to forming wall systems. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form sealed windows, door, etc. in the cavity wall taught by Jensen et al. as it was well known in the art to provide wall systems with these sealed openings as shown for example by Price et al. to allow movement into and out of structures formed by the wall systems.

As noted above Price et al. are directed to a structural honeycomb panel building system for building enclosed structures. Price et al. teach forming holes in the panels to form casements for a window, door, etc. Price et al. teach the casements are sealed by applying a shaped strip, i.e. plate, to the edges of the hole (Figures 27, 28, and 28a and Column 22, lines 50-52 and 55-57).

Conclusion

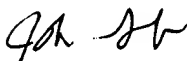
18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L. Goff whose telephone number is 703-305-7481. The examiner can normally be reached on M-Th (8 - 5) and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on 703-308-2058. The fax phone numbers for the

Art Unit: 1733

organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



John L. Goff
July 25, 2003


Michael W. Ball

Supervisory Patent Examiner
Technology Center 1700